

REMARKS

Claim 1 has been amended to recite that the claimed kinetic spectrophotometer is adapted to measure changes in the light absorbance or changes in the fluorescent radiation emission of a sample over time. Support for this claim amendment is found in the specification at least at page 8, lines 19-21.

Claim 15 has been amended to recite the use of a kinetic spectrophotometer that includes a light detector disposed to receive light that is transmitted through a sample, or that is emitted by the sample. Support for this amendment is found at least in FIGURE 5 of the specification that discloses a kinetic spectrophotometer including a light detector 556 (and see description of the disclosed kinetic spectrophotometer at page 12, lines 1-4).

In view of the foregoing claim amendments and the arguments that follow, applicants respectfully submit that all of the pending claims are in condition for allowance.

Rejection of Claims 15 and 17-32 Under 35 U.S.C. § 112, Second Paragraph, for Alleged Indefiniteness.

Claim 15 has been amended to recite the use of a kinetic spectrophotometer that includes a light detector disposed to receive light that is transmitted through the sample, or that is emitted by the sample. Applicants submit that this amendment overcomes the Examiner's rejection of Claims 15 and 17-32 for indefiniteness.

Rejection of Claim 1 Under 35 U.S.C. § 102(b) as Being Allegedly Anticipated by Alexay et al. (U.S. Patent 5,519,219).

In order to anticipate a claimed invention, a publication must disclose each and every element of the claimed invention.

Amended Claim 1 is directed to a kinetic spectrophotometer that is capable of measuring changes in the light absorbance and/or changes in the fluorescent radiation emission of a sample (such as a plant leaf) over time. Applicants submit that the device disclosed in the Alexay et al.

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patent is not a kinetic spectrophotometer because it is not configured to measure changes in light absorbance and/or changes in fluorescent radiation emission of a sample over time. The Alexay et al. instrument is configured to detect infrared light reflected back from a sample in order to qualitatively analyze the chemical composition of the sample (*see, e.g.*, Alexay et al. patent, Col. 1, lines 43-46 and lines 55-67). Measurement of changes in light absorbance and/or changes in fluorescent radiation emission of a sample over time is not required in the practice of the Alexay et al. invention.

Thus, applicants submit that the Alexay et al. patent does not disclose each and every element of the claimed invention and so does not anticipate Claim 1 of the application.

Rejection of Claims 2-8 Under 35 U.S.C. § 103(a) as Being Unpatentable Over
One or More of Alexay et al. (U.S. 5,519,219), Keränen et al. (U.S. 5,029,245)
and Butterworth et al. (U.S. 6,005,722).

Applicants respectfully submit that none of the references relied upon by the Examiner disclose or suggest a kinetic spectrophotometer that is capable of measuring changes in the light absorbance and/or changes in the fluorescent radiation emission of a sample (such as a plant leaf) over time. Additionally, none of the references relied upon by the Examiner disclose or suggest a kinetic spectrophotometer that is configured to measure light that is transmitted through, or emitted from, a sample in order to measure changes in a component of the sample over time.

In particular, the device disclosed in the Alexay et al. patent uses a single spectrophotometric measurement to qualitatively analyze the chemical composition of a sample. Practice of the Alexay et al. invention does not require, and does not suggest, measuring changes in light absorbance and/or changes in fluorescent radiation emission of a sample over time.

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CONCLUSIONS

In view of the foregoing claim amendment and arguments, applicants submit that all of the pending claims are in condition for allowance. Reconsideration and favorable action are requested.

Respectfully submitted,

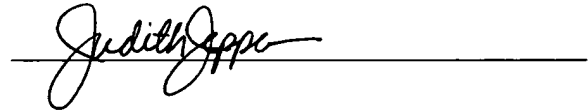
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